

is reason to believe that their efficient cause of action, whatever it may be, emanates from the blood itself.

Let us then, Gentlemen, dispense with the hypothetical part of the medical reasonings of the present day, and confine ourselves, for practical purposes, to the facts. I am quite satisfied, that so far as the theory of respiration goes, this course will be found of great value in the sick chamber. Let us study and impress upon our minds the indispensable relations of blood and air for the health and vigour of the animal economy, for the due performance of nutrition, secretion, and all our complicated nervous, muscular, and intellectual powers. A due regard to this part of the physiology of the blood would establish some of the most correct principles of hygiene and therapeutics.

*Corrigenda.*—Page 685, line 11, for 839, read 913; line 12, for 852, read 903.

## LECTURES

ON THE  
FUNCTION AND DISEASES OF THE WOMB,

Delivered at his Class Room,

*Bartholomew-Close, St. Bartholomew's  
Hospital.*

BY CHARLES WALLER, M.D.

### LECTURE VII.

*Malignant ulcer of the womb—generally occurs after menstruation has ceased.—Symptoms in the early and in the more advanced stages of the disease.—Peculiarity of the pain; disease commences in the membrane covering the os tincæ; differs in its appearance from carcinoma; substance of the uterus in general not affected.—Treatment, palliative, except at the commencement, before ulceration has taken place; treatment when ulceration has occurred; various other ulcerations of the os uteri.—Cauliflower excrescence; symptoms.—Sir Charles Clarke's opinion as to its cause.—Prognosis always unfavourable regarding life; favourable and unfavourable symptoms as to duration of life; may be mistaken for placental presentation.*

#### MALIGNANT ULCER OF THE WOMB.

THE os and cervix uteri are occasionally the seat of ulceration, which, from its character, has been termed "malignant," although it differs materially from what are usually called the malignant diseases, viz: cancer and hæmatoid fungus. Women are very seldom the subject of this affection until they arrive at the age when the monthly function of the womb ceases, and this observation will apply to most of the other dangerous varieties of uterine complaints,

for as long as the local flow is continued, the tendency to morbid action appears to be prevented from developing itself; but when the vessels are no longer relieved by the evacuation, the hitherto latent germs of disease begin to manifest themselves, and, unless checked by appropriate treatment, soon acquire a fearful degree of maturity.

*Symptoms.*—The symptoms which precede the formation of ulcer are too frequently those which excite no alarm in the minds of our patients, particularly as they always expect some uneasy sensations at "the turn of life." A sense of heat in the vagina may be mentioned as one of the earliest signs, varying in intensity; in some hardly deserving the name of *heat*, the natural temperature being but slightly increased, whilst in others the sensation is described as being almost intolerable. A thin acrimonious discharge is also noticed, its quantity sometimes very small, but its quality remarkably irritating, so that, unless cleanliness be observed, the surface over which it flows becomes inflamed, and afterwards excoriated. Soon, however, this discharge becomes purulent, often mixed with blood, and highly offensive. As the disease advances, there are occasional hæmorrhages to a serious extent, produced in consequence of the coats of some of the larger vessels being destroyed by the ulcerative process.

The constitution soon gives way under these repeated drainings, the face becomes pale and sallow, muscular strength is diminished, the pulse feeble and rapid, and, in short, all the usual symptoms indicating prostration of the powers of life are observable. Pain is an uniform attendant on this form of uterine disease, but of a peculiar kind. When I speak of cancer I shall take occasion to repeat the observations, now about to be made, respecting the different kinds of pain experienced in the two diseases. In cancer, intense and agonizing pains are experienced, and these are described of a lancinating or stabbing character; in the malignant ulcer, they are designated of a burning or scalding kind, so that you could, from that circumstance, even prior to an examination, form a tolerably accurate opinion whether your patient were suffering under malignant or cancerous ulceration.

Malignant ulcer of the uterus commences in that portion of the vaginal membrane which is reflected over the mouth of the womb, soon extends over its whole surface, and, penetrating to the parts beneath, destroys entirely the os uteri; the cervix is next attacked, and in some rare cases the female has lived until nearly the whole of the organ has been removed by ulceration.

I show you two very interesting specimens of the disease, one presented to me by my friend Mr. Pereira; the subject from whom it was taken was a patient of the

General Dispensary, Aldersgate-street, who died of fever. So little inconvenience was experienced, or at least so little impression was made upon her mind, that Mr. P.'s attention was not even directed to the uterus, and yet observe the ravages made by the ulcer; the whole mouth and part of the cervix completely gone. But notice also the upper portion of the organ; there is not the slightest apparent deviation from the healthy condition, no redness, no enlargement, no thickening. It is this circumstance which in so striking a manner characterises this variety of uterine ulcer. When you make an examination per vaginam, you easily distinguish by the touch to what extent absorption has taken place, but every part, with the exception of the actual seat of the ulcer, appears healthy. Even in some of the worst cases, where the bladder and the rectum have been involved, there has still been no thickening of the adjacent parts. In but few instances, however, do we find ulceration extending beyond the womb itself.

*Treatment.*—When ulceration of this kind has occurred, the powers of nature are never equal to restore the part to its natural condition; this, I believe, to be the concurrent testimony of our most celebrated practical men. Sir Charles Clarke says, "When once the ulcerative process has commenced in this disease, the part attacked by it never, as far as the author's experience has gone, recovers its healthy structure, but increased action of the blood-vessels of the os uteri, which would eventually terminate in ulceration, may, probably, be diminished or controlled, so that the ulceration may not take place, and by such a mode of treatment much advantage is gained."

Another author states, that though the cure of this ulcer is exceedingly difficult, and notwithstanding it is "nearly as severe as cancer itself," yet it has been cured by "mercury alone, or combined with hemlock, hyoscyamus, and other narcotics." My own experience induces me to coincide in the opinion of Sir C. Clarke, and I therefore wish to impress upon your minds, I had almost said, the *awful* necessity of attending to the symptoms antecedent to the formation of ulcer. My opinion, formed from not a very limited circle of observation, is very decided as regards *this* and most other species of malignant disorganizations of the uterus; viz., that inflammation is their cause, the *fons et origo mali*; that it is not essentially specific in its character, but observes the same laws, and yields to the same treatment, as any ordinary case of inflammation; that the specific character, which the disorder afterwards assumes, depends not upon the application of any peculiar exciting cause, but that the character of such disease is determined by the tendency which exists in the individual consti-

tion; and, lastly, that therefore the same immediate cause produces in one, simple inflammation, with chronic enlargement; in a second, malignant ulcer; in a third, carcinoma; and in a fourth, cauliflower excrescence. Do not, therefore, as you value your own reputation, and the well-being of those patients who commit themselves to your care, do not negligently pass over, but, on the other hand, carefully attend to, the *slightest* symptoms of uterine uneasiness, more especially if they appear when the menstrual discharge is about finally to cease.

I have already told you, that in some the flow gradually lessens, and by degrees disappears without any uncomfortable sensations being experienced; this, however, though "a consummation devoutly to be wished," is not often the case, for almost every female, even where there is no tendency to malignant disease, feels some annoyance at this period, and as we seldom know before-hand what is the affection to which the constitution may be predisposed, it behoves us to treat every case with the same attention we should direct towards it if we were certain that life or death would be the result of our remedial plan.

Suppose, then, a patient applies to you at about the age of forty-five, complaining of heat in the genitals, pain in the back, dragging sensations about the hips, uneasy feelings in passing urine, with or without tenesmus, do not dismiss her with such a sentence as this, "Well madam, you must expect all these uneasy feelings at your age, but if you have patience they will subside." True, they *might* disappear, but it is equally true that these symptoms are very often the forerunners of fatal diseases; consider, therefore, such a case to be at least one of threatened malignancy, and attack it accordingly. The removal of blood will be suggested to your mind as likely to relieve incipient inflammatory action; in some persons who are of plethoric habit, where there is force as well as frequency of the arterial circulation, it may be removed from the arm, but in most, cupping from the loins, or leeching the vulva, will be sufficient; the latter method I would recommend, believing it advisable to empty the vessels in the immediate neighbourhood of the disease. After the lapse of a longer or shorter interval, which must vary according to the circumstances of each case, the blood-letting should be repeated. If, after the application of the leeches, discharge of a leucorrhoeal character makes its appearance, you may regard it as a good sign, and should by no means endeavour to check it.

Purging, to a moderate extent, is required, and for that purpose you employ the alkaline aperient prescribed in a former lecture, with or without the hyoscyamus, as the nature of the case may require. Although

powerful purgatives, as is well known, will, in many instances, quickly reduce inflammatory action, yet here, from the proximity of the rectum to the womb, if you were by drastic aperients to act violently upon the former you would of necessity irritate the latter. A warm hip-bath, the temperature of which is not very high, say from 90 to 93 degrees, should be used every evening, the immersion to be continued until a slight degree of faintness is beginning to be felt; after this a sufficient quantity of any anodyne may be given to procure rest for the night. Long-continued fomentation of the part itself will often lessen pain, and this may be easily effected by throwing up the vagina by means of a syringe, warm decoction of poppies or of hemlock; the diet must necessarily be abstemious, and everything which excites the action of the parts avoided; should the female be married, she should be advised to separate from her husband for a time.

This treatment, then, is proper, and, in many cases, will be successful if you have an opportunity of putting it into practice before ulceration has taken place; when, however, you have the ulcer actually formed, you must, I fear, entertain very slender hopes of a cure, although, by proper management, relief, to a certain extent, may be obtained.

It is of the first importance that the offensive discharge be removed from the parts, and not suffered to irritate the delicate vaginal membrane; warm fomentations, before mentioned, will answer your purpose very well at first; but when the discharge is in large quantity, or where hæmorrhage supervenes, some cold astringent solution is to be substituted, *e. g.*, a weak solution of sulphate of zinc, sulphate of copper, &c., in decoction of oak bark or galls. A pencil of nitrate of silver has been used by some, introduced through the speculum, and applied to the ulcer itself, with a view of destroying the diseased ulceration, and of producing a healthy sore beneath. I am not prepared to say that this would be a useless application where the disorder is confined to a small surface; at the same time, the irritation produced is so great, that a reasonable doubt may be entertained respecting its efficacy; it is a plan not adopted by myself. The operation of cutting away the os and part of the cervix uteri, as proposed and practiced by Lisfranc, would be much more likely to remove the disease altogether, but of this I cannot speak from experience.

The horizontal posture must be constantly kept to; you cannot too strongly enforce upon the mind of your patient the necessity of strict obedience in this particular. Where the strength is failing, and emaciation rapidly advancing, a more nutritious diet will be required, care being taken to avoid stimulants; a tonic remedial plan is also indicated; the

mineral acids are very agreeable, and serviceable also; they may be combined with any bitter infusion; the hydrochloric acid is peculiarly grateful to a weakened stomach, though sometimes it disturbs the bowels.

Other ulcerations are sometimes seen on the neck of the womb, such as the syphilitic, scrofulous, &c.; these should be treated in the same manner as when they are externally situated. In scrofulous abscess of the glands of the os uteri, the cheesy-looking matter, peculiar to that affection, will pass away mixed with the vaginal discharges.

#### *Cauliflower Excrescence of the Os Uteri.*

This disease has been so designated, from the tumour bearing some resemblance in its texture to the vegetable of that name; it consists of a larger or smaller swelling, which possesses a considerable degree of firmness, made up of an indefinite number of projecting bodies, varying in size and figure, being in some parts rough, in others smooth. It grows from the exterior of the os uteri, and has never yet been discovered within the cavity. The enlargement in some is rapid, in others slow; this depends upon the constitution, in part, and partly upon the condition of the vagina, whether it be relaxed or firm.

The tumour is covered over by a membrane, which secretes a limpid, watery fluid, the quantity of which necessarily depends upon the size of the swelling, as it is poured out from the whole of its surface; whenever, therefore, the discharge is copious, we may be assured, before an examination has been made, that we shall find extensive disease; at the commencement there will be little more than the ordinary moisture of the parts; this will increase until it becomes inconvenient to the patient; but as no pain is felt, her mind is not impressed with the idea that she is labouring under disease; at length the constitutional powers begin to fail, the countenance becomes sallow, and great weakness supervenes, or, perhaps, she is alarmed by the sudden irruption of a large quantity of blood; this hæmorrhage may occur spontaneously, or, probably, be brought on by exercise, or by some sudden concussion of the body; where this has once taken place it is apt to be renewed by very slight causes, and then the powers of the system are speedily reduced. Sir C. Clarke remarks, that fatal syncope has been known to follow one of these hæmorrhagic attacks; œdema is a very common attendant in the latter stages of the complaint, the patient being carried off by dropsical effusions into some of the cavities of the body, and thus may be said to have been destroyed by the remote effects of her original disease. In the post-mortem inspection of those who have died from cauliflower excrescence, no distinct tumour, but a

mere flocculent appearance, has been observed, growing from the os uteri. With the cause producing the disease we are not fully acquainted; it seems, however, to be a vascular and, in fact, an arterial tumour, and the conjecture of Sir C. Clarke appears so reasonable, that I shall read you what he has said respecting it:—"Hitherto it has not been ascertained what circumstances produce in the parts a disposition to take on the formation of this disease. It might be conjectured that an injury, inflicted upon the os uteri in labour, either by the head of the child, or by violent attempts made to dilate it, might become an exciting cause; but many examples are to be met with, in which such injury has been done to the os uteri, and no such disease has followed. Married women, who have never been pregnant—nay, single women—are liable to the complaint, in whom no violence can have been offered to the os uteri; it cannot be traced to any syphilitic cause; the common prostitutes of this metropolis are by no means more liable to it than any similar number of women in different stations of life. The disease arises as often in the strong and in the robust, as in the weak; in persons who live in the country, as those who live in large towns; in those whose situation in life obliges them to labour, as well as in those who, from their rank in society, sometimes consider themselves privileged to be useless members of it. No period of life, after the age of twenty, seems to be exempt from the disease. The author has known it fatal at the age of twenty; and he has met with the disease at different periods of life up to old age. The complaint may arise, perhaps, before the woman has reached her twentieth year, but no such case has occurred in the experience of the author.

"It has been observed above, that arterial blood escapes from the tumour when injured; indeed, the tumour appears to be made up of a congeries of blood-vessels, and those blood-vessels, arteries; the infinitely small branches of these vessels, terminating upon the surface of the tumour, exhale, in the most abundant manner, an aqueous fluid. Perhaps some small arteries, near the os uteri, may undergo that morbid dilatation of their coats which is analagous to aneurysm in larger trunks, and thus the disease may be produced. Something similar to this takes place in the arterial or blood-red nævus; but there, the surface being covered by cutis and cuticle, no moisture of the part is met with; but if the surface of such a nævus be injured, arterial blood escapes. May such a state of blood-vessels exist at the time of birth, remain concealed in early life, from the very small quantity of blood which circulates in the organs of generation at that age, and be developed at that period at which blood rushes with greater force, and in greater

quantity, to enlarge those organs, and in the female to render them fit for the performance of new duties? It may be that the increased circulation which is present at puberty, may not be sufficient to elicit the phenomena of the complaint; the stimulus of marriage may be required in some, whilst in others the further development of the organs in pregnancy, or the exertions of labour may be necessary to call forth the morbid symptoms of such hitherto dormant disease."

The vaginal examination of these patients should be conducted with caution, as a rough examination would break down the tumour, and produce considerable hæmorrhage.

*Prognosis.*—When called upon to give an opinion, it must be always unfavourable as regards life; but there are circumstances to be taken into the account with regard to its probable duration. The favourable symptoms are, 1st, The health of the female not being impaired. 2ndly, The tumour being small, not occupying the whole of the os uteri, but only a portion of it; the discharge being in proportion to the extent of surface from whence it flows will here be much less; again, the blood-vessels are smaller, and, therefore, hæmorrhage will be much less profuse. 3rdly, A firm and contracted state of the vagina, the pressure of which tends much to retard the growth of the tumour. 4thly, the female being unmarried. Whatever determines blood to the part will, more or less, cause an increase of the swelling, as it is entirely composed of arteries. Moreover, repeated coitus will relax the parietes of the vagina, thus producing a double disadvantage, for you not only have an increased flow of blood to the tumour, but a diminution of resistance on the part of the vagina; if, then, the patient be unmarried, the chance of life being prolonged is much greater. The unfavourable signs are the reverse of these; the patient's constitution giving way, the tumour occupying the whole surface of the os uteri, the discharge profuse, the vagina relaxed, and, lastly, the patient being married. Again, if married, she may become pregnant; when, from the greatly-increased capacity of the uterine arteries during that state, the tumour rapidly increases in size.

If a female, affected with cauliflower excrescence, should prove with child, and you have no opportunity of examining before labour comes on, you would, probably, at first mistake the case for placental presentation, in consequence of the profuseness of the hæmorrhage, for the blood will then come away in most alarming quantities.

I have already told you there is no cure for this disease. In the next lecture we shall consider what means are best adapted for the relief of those unfortunate individuals who are the subjects of it.